

SEQUENCE LISTING

<110> Farese, Robert V.
Cases, Sylvaine
Smith, Steven
Erickson, Sandra

<120> Diacylglycerol O-Acyltransferase

<130> 6510-105CIP2

<150> 60/107,771
<151> 1998-11-09

<150> PCT/US98/17883
<151> 1998-08-28

<150> 09/103,754
<151> 1998-06-24

<150> 09/339,472
<151> 1999-06-23

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<170> FastSEQ for Windows Version 3.0

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tcctctggtc ccagggagac ctctctgccc ctatggggct ctgtcctgca cccctcaggg	180
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tagaagagga cgaggtgcga gacgcgcgtg tgagccccga cttggcgcc ggggtgacg	240
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gcgacggcta ctgggatctg aggtgcacat gctgcaaga ttctttgttc agctcagaca	360
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<212> DNA

<213> arabidopsis thaliana

<220>

<221> misc_feature

<222> (0)...(0)

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atatgtgtgg	ctctgcgtgt	tctactgtt	cttccaccc	tggtaaaaca	tattggcaga	240
gcttctctgc	ttcggggatc	gtgaattcta	caaagattgg	tggaatgcaa	aaagtgtggg	300
agattactgg	gagaatgtgg	aatatgcctg	tccataaatg	ggatgggtcc	gacatatata	360
cctcccccgt	gcttgcgcac	aaggattacc	caaagacacc	ccggccatta	accattggct	420
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ttcaaagcaa	agggggnntt	cctggggnta	aagntccang	ggcccttggg	gcccanccaa	540
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<212> PRT
<213> homo sapiens

<400> 5

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 Cys Leu Val Ile Ala Ala Asn Val Phe Ala Val Ala Ala Phe Gln Val
 35 40 45
 Glu Lys Arg Leu Ala Val Gly Ala Leu Thr Glu Gln Ala Gly Leu Leu
 50 55 60
 Leu His Val Ala Asn Leu Ala Thr Ile Leu Cys Phe Pro Ala Ala Val
 65 70 75 80
 Val Leu Leu Val Glu Ser Ile Thr Pro Val Gly Ser Leu Leu Ala Leu
 85 90 95
 Met Ala His Thr Ile Leu Phe Leu Lys Leu Phe Ser Tyr Arg Asp Val
 100 105 110
 Asn Ser Trp Cys Arg Arg Ala Arg Ala Lys Ala Ala Ser Ala Gly Lys
 115 120 125
 Lys Ala Ser Ser Val Ala Ala Pro His Thr Val Ser Tyr Pro Asp Asn
 130 135 140
 Leu Thr Tyr Arg Asp Leu Tyr Tyr Phe Leu Phe Ala Pro Thr Leu Cys
 145 150 155 160
 Tyr Glu Leu Asn Phe Pro Arg Ser Pro Arg Ile Arg Lys Arg Phe Leu
 165 170 175
 Leu Arg Arg Ile Leu Glu Met Leu Phe Phe Thr Gln Leu Gln Val Gly
 180 185 190
 Leu Ile Gln Gln Trp Met Val Pro Thr Ile Gln Asn Ser Met Lys Pro
 195 200 205
 Phe Lys Asp Met Asp Tyr Ser Arg Ile Ile Glu Arg Leu Leu Lys Leu
 210 215 220
 Ala Val Pro Asn His Leu Ile Trp Leu Ile Phe Phe Tyr Trp Leu Phe
 225 230 235 240
 His Ser Cys Leu Asn Ala Val Ala Glu Leu Met Gln Phe Gly Asp Arg
 245 250 255
 Glu Phe Tyr Arg Asp Trp Trp Asn Ser Glu Ser Val Thr Tyr Phe Trp
 260 265 270
 Gln Asn Trp Asn Ile Pro Val His Lys Trp Cys Ile Arg His Phe Tyr
 275 280 285
 Lys Pro Met Leu Arg Arg Gly Ser Ser Lys Trp Met Ala Arg Thr Gly
 290 295 300
 Val Phe Leu Ala Ser Ala Phe Phe His Glu Tyr Leu Val Ser Val Pro
 305 310 315 320
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 325 330 335
 Pro Leu Ala Trp Phe Val Gly Arg Phe Phe Gln Gly Asn Tyr Gly Asn
 340 345 350
 Ala Ala Val Trp Leu Ser Leu Ile Ile Gly Gln Pro Ile Ala Val Leu

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 <213> homo sapiens

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Pro Ala Pro Asn Lys Asp Gly Asp Ala Gly Val Gly Ser Gly His Trp		
50 55 60		
Glu Leu Arg Cys His Arg Leu Gln Asp Ser Leu Phe Ser Ser Asp Ser		
65 70 75 80		
Gly Phe Ser Asn Tyr Arg Gly Ile Leu Asn Trp Cys Val Val Met Leu		
85 90 95		
Ile Leu Ser Asn Ala Arg Leu Phe Leu Glu Asn Leu Ile Lys Tyr Gly		
100 105 110		
Ile Leu Val Asp Pro Ile Gln Val Val Ser Leu Phe Leu Lys Asp Pro		
115 120 125		
His Ser Trp Pro Ala Pro Cys Leu Val Ile Ala Ala Asn Val Phe Ala		
130 135 140		
Val Ala Ala Phe Gln Val Glu Lys Arg Leu Ala Val Gly Ala Leu Thr		
145 150 155 160		
Glu Gln Ala Gly Leu Leu Leu His Val Ala Asn Leu Ala Thr Ile Leu		
165 170 175		
Cys Phe Pro Ala Ala Val Val Leu Leu Val Glu Ser Ile Thr Pro Val		
180 185 190		
Gly Ser Leu Leu Ala Leu Met Ala His Thr Ile Leu Phe Leu Lys Leu		
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Phe Ser Tyr Arg Asp Val Asn Ser Trp Cys Arg Arg Ala Arg Ala Lys		
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Ala Ala Ser Ala Gly Lys Lys Ala Ser Ser Ala Ala Ala Pro His Thr		
225 230 235 240		
Val Ser Tyr Pro Asp Asn Leu Thr Tyr Arg Asp Leu Tyr Tyr Phe Leu		
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Phe Ala Pro Thr Leu Cys Tyr Glu Leu Asn Phe Pro Arg Ser Pro Arg		
260 265 270		
Ile Arg Lys Arg Phe Leu Leu Arg Arg Ile Leu Glu Met Leu Phe Phe		
275 280 285		
Thr Gln Leu Gln Val Gly Leu Ile Gln Gln Trp Met Val Pro Thr Ile		
290 295 300		
Gln Asn Ser Met Lys Pro Phe Lys Asp Met Asp Tyr Ser Arg Ile Ile		
305 310 315 320		
Glu Arg Leu Leu Lys Leu Ala Val Pro Asn His Leu Ile Trp Leu Ile		
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Phe Phe Tyr Trp Leu Phe His Ser Cys Leu Asn Ala Val Ala Glu Leu		
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Met Gln Phe Gly Asp Arg Glu Phe Tyr Arg Asp Trp Trp Asn Ser Glu		
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Ser Val Thr Tyr Phe Trp Gln Asn Trp Asn Ile Pro Val His Lys Trp		
370 375 380		
Cys Ile Arg His Phe Tyr Lys Pro Met Leu Arg Arg Gly Ser Ser Lys		

385	390	395	400
Trp Met Ala Arg Thr Gly Val Phe Leu Ala Ser Ala Phe Phe His Glu			
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Tyr Leu Val Ser Val Pro Leu Arg Met Phe Arg Leu Trp Ala Phe Thr			
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Gly Met Met Ala Gln Ile Pro Leu Ala Trp Phe Val Gly Arg Phe Phe			
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Gln Gly Asn Tyr Gly Asn Ala Ala Val Trp Leu Ser Leu Ile Ile Gly			
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Tyr Glu Ala Pro Ala Ala Glu Ala			
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 <211> 498
 <212> PRT
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Ala Pro Ala Pro Ala Pro Ala Pro Ala His Thr Arg Asp Lys Asp Gly			
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Arg Thr Ser Val Gly Asp Gly Tyr Trp Asp Leu Arg Cys His Arg Leu			
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Gln Asp Ser Leu Phe Ser Ser Asp Ser Gly Phe Ser Asn Tyr Arg Gly			
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Ile Leu Asn Trp Cys Val Val Met Leu Ile Leu Ser Asn Ala Arg Leu			
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Phe Leu Glu Asn Leu Ile Lys Tyr Gly Ile Leu Val Asp Pro Ile Gln			
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Val Val Ser Leu Phe Leu Lys Asp Pro Tyr Ser Trp Pro Ala Pro Cys			
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Leu Leu Val Glu Ser Ile Thr Pro Val Gly Ser Val Phe Ala Leu Ala			
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Lys Lys Val Ser Gly Ala Ala Ala Gln Gln Ala Val Ser Tyr Pro Asp			
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Asn Leu Thr Tyr Arg Asp Leu Tyr Tyr Phe Ile Phe Ala Pro Thr Leu			
260	265	270	
Cys Tyr Glu Leu Asn Phe Pro Arg Ser Pro Arg Ile Arg Lys Arg Phe			
275	280	285	
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Gly Leu Ile Gln Gln Trp Met Val Pro Thr Ile His Asn Ser Met Lys			
305	310	315	320
Pro Phe Lys Asp Met Asp Tyr Ser Arg Ile Ile Glu Arg Leu Leu Lys			

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Leu Ala Val Pro Asn His Leu Ile Trp		Leu Ile Phe Phe Tyr		Trp Phe	
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Phe His Ser Cys Leu Asn Ala Val Ala		Glu Leu Leu Gln Phe Gly Asp			
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Arg Glu Phe Tyr Arg Asp Trp Trp Asn Ala Glu		Ser Val Thr Tyr Phe			
370		375		380	
Trp Gln Asn Trp Asn Ile Pro Val His Lys Trp		Cys Ile Arg His Phe			
385		390		395	
Tyr Lys Pro Met Leu Arg His Gly Ser Ser Lys Trp		Val Ala Arg Thr			
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Gly Val Phe Leu Thr Ser Ala Phe Phe His Glu		Tyr Leu Val Ser Val			
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Pro Leu Arg Met Phe Arg Leu Trp Ala Phe Thr Ala		Met Met Ala Gln			
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Val Pro Leu Ala Trp Ile Val Gly Arg Phe Phe		Gln Gly Asn Tyr Gly			
450		455		460	
Asn Ala Ala Val Trp Val Thr Leu Ile Ile Gly		Gln Pro Val Ala Val			
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Gly Val					

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<210> 9
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Ala Pro Ala Pro Ala Pro Ala Pro Ala His Thr Arg Asp Lys Asp Gly	
50 55 60	
Arg Thr Ser Val Gly Asp Gly Tyr Trp Asp Leu Arg Cys His Arg Leu	
65 70 75 80	
Gln Asp Ser Leu Phe Ser Ser Asp Ser Gly Phe Ser Asn Tyr Arg Gly	
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Ile Leu Asn Trp Cys Val Val Met Leu Ile Leu Ser Asn Ala Arg Leu	
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Ser Tyr Ser Ile Met Phe Leu Lys Leu Tyr Ser Tyr Arg Asp Val Asn	
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Lys Lys Val Ser Gly Ala Ala Ala Gln Gln Ala Val Ser Tyr Pro Asp	
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Cys Tyr Glu Leu Asn Phe Pro Arg Ser Pro Arg Ile Arg Lys Arg Phe	
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340 345 350	
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355 360 365
Arg Glu Phe Tyr Arg Asp Trp Trp Asn Ala Glu Ser Val Thr Tyr Phe
370 375 380
Trp Gln Asn Trp Asn Ile Pro Val His Lys Trp Cys Ile Arg His Phe
385 390 395 400
Tyr Lys Pro Met Leu Arg His Gly Ser Ser Lys Trp Val Ala Arg Thr
405 410 415
Gly Val Phe Leu Thr Ser Ala Phe Phe His Glu Tyr Leu Val Ser Val
420 425 430
Pro Leu Arg Met Phe Arg Leu Trp Ala Phe Thr Ala Met Met Ala Gln
435 440 445
Val Pro Leu Ala Trp Ile Val Gly Arg Phe Phe Gln Gly Asn Tyr Gly
450 455 460
Asn Ala Ala Val Trp Val Thr Leu Ile Ile Gly Gln Pro Val Ala Val
465 470 475 480
Leu Met Tyr Val His Asp Tyr Tyr Val Leu Asn Tyr Asp Ala Pro Val
485 490 495
Gly Val